

ABSTRACT

The present invention features a boatlift leg and frame structure utilizing a ball screw lifting mechanism driven by a reversible electric motor to raise and lower a boat support carriage. The raising and lowering operation of the ball screw mechanism is controlled by electronic circuitry that includes wired and remote direction selection; lifting logic with conflict detection and direction reversal delay; lighting control logic; motor power control; and overload detection logic to detect lifting overload and disable power to the motor power control. A drive train mechanism converts high-speed low torque rotation of the motor drive shaft to low-speed high-torque rotation drive of the ball screw. A boatlift leveling mechanism associated with one or more legs of the boatlift includes a ground engaging footpad, an extendible leg, a height adjusting screw mechanism and a height adjusting actuator with mating bevel gears coupled to the height adjusting screw for allowing adjustment through the side of a boatlift leg.